

# Mineral Industry Surveys

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## PRECIOUS METALS IN NOVEMBER 2000

U.S. mines produced 24,700 kilograms (kg) of gold and 156,000 kg of silver in November 2000. Compared with October, production of gold was down 32% in Alaska and 14% in Nevada.

### Gold

**Domestic.**—The U.S. Bureau of Land Management has withdrawn 9,360 acres of land in California from future mining claims, which include 1,500 acres that Glamis Gold Ltd. wants to use for development of its Imperial open pit gold mine. Imperial has been in the permitting pipeline for more than 5 years (Platt's Metals Week, 2000a).

Golden Phoenix Minerals Inc. purchased for \$225,000 the Mineral Ridge gold mine in Esmeralda County, NV. The crushing system needs minor repairs, but the mine is expected to operate at full production in the first half of 2001 after reclamation permits are granted (American Metal Market, 2000c).

**International.**—Goldcorp Inc. and CSA Management Inc. have merged. The newly formed company retained the name Goldcorp Inc. Its primary asset is the Red Lake gold mine in northern Ontario. The mine was reopened October 19 and started full production in late November (American Metal Market, 2000b).

Plans for a liberalized Chinese gold market took a big step forward with the World Gold Council's (WGC) release of a blueprint to guide the deregulation process. WGC proposed a three-stage liberalization plan in compliance with World Trade Organization rules: partial deregulation over a 2-year transition period, the complete opening of the domestic market, and the direct linking of the Chinese market to the international market. China is expected to set up a national gold exchange in 2001 inside the existing silver exchange in Shanghai. The exchange will trade only spot gold (American Metal Market, 2000a).

Sumitomo Metal Mining Co., Ltd., Japan's largest gold producer, launched an e-commerce marketplace for gold and gold investment products. Three services are offered. The first is a

"pure gold" fund that allows customers to invest in gold funds monthly and to liquidate for cash at any time. The second service is a "pure gold plus" fund that allows the sale of gold holdings bought from Sumitomo or elsewhere. The third service is a "gold ingot spot purchasing" fund that allows the sale of gold ingots at prevailing spot gold prices. Sumitomo will source the gold from its Hishikari Mine and refine the gold at its Besshi facility (Platt's Metals Week, 2000c).

The Bank of England sold 25,000 kg of gold at \$264.30 per troy ounce at a November 7 auction. The auction, which was 3.3 times oversubscribed, was the ninth since July 1999. The gold sold for \$0.30 per ounce higher than the morning fix price in London (Metal Bulletin, 2000b).

According to Metals Economics Group of Canada, worldwide nonferrous exploration spending, in which gold exploration accounts for the largest expenditures, fell by 7% in 2000. The rate of decline has slowed from the decreases of 24% in 1999 and 29% in 1998. Latin America maintained its top position as the most active exploration region. The other major exploration locations, in order of expenditures, were: Australia, Canada, Africa, the United States, and Pacific/Southeast Asia (Metal Bulletin, 2000a).

The World Gold Council conducted a \$3 million advertising blitz in 2000 to boost Christmas season jewelry sales. The advertising campaign, promoting gold as fashion accessory, was backed by AngloGold Limited (American Metal Market, 2000e).

Gold demand during the third quarter of 2000 remained strong. The demand for gold was 807,000 kg, down 8% from the exceptionally strong third quarter of 1999, when gold demand went on to set a record for 3-month periods. Demand for gold jewelry, accounting for 717,500 kg of gold, was 5% below the third quarter of 1999. Outstanding gains in jewelry consumption were seen in Japan, Saudi Arabia, Thailand, Turkey, and Vietnam. Investment demand for gold was 89,600 kg, 30% below the third quarter of 1999; a sharp fall in sales of new gold coins in the United States

accounted for almost all of the decline. U.S. gold coin demand had been exceptionally strong in 1999 in anticipation of the Y2K disruption. There was little change in investment demand for gold elsewhere in the world (World Gold Council, 2000).

CPM's *Gold Survey 2000* estimated that total gold sales by central banks worldwide would be up 58.5% at 400,000 kg from the 255,000 kg sold in 1999, and would be about 90% of the 450,000 kg the central banks sold in 1998. Net official gold disposals are projected to be 370,000 kg in 2001 (Platt's Metals Week, 2000d).

The London Bullion Market Association's gold clearing statistics fell to new lows during October. Gold transfers were down about 10.5% in comparison with those of September, falling to a daily average of 18.9 million ounces (588,000 kg). The daily average number of gold transfers rose from 789 to 792 (American Metal Market, 2000d).

### Silver

On November 7, 2000, Hecla Mining Co., Coeur d'Alene, Idaho, reported that it mined more than 190 metric tons (t) of silver and 3.5 t of gold in the first 9 months of 2000. The Lucky Friday silver mine in northern Idaho produced 121 t of silver in the first 9 months of 2000 and was reportedly on track to produce 156 t by the end of the year. The silver ore grade mined at Lucky Friday increased 12% compared to the first 9 months of 1999, from 479 grams per ton (g/t) to 525 g/t. Total cash costs for this period were \$4.85 per ounce, similar to the same period in 1999. The Greens Creek Mine in Alaska, in which Hecla is a 29.73% owner, produced 65.3 t of silver in the first 9 months of 2000. Ore grade was lower during the third quarter, causing a 22% decrease in silver production compared to the same quarter in 1999. The silver ore grade averaged 543 g/t at Greens Creek during the third quarter of 2000 compared to 735 g/t during the same period in 1999 (Hecla Mining Co., 2000).

### Platinum-Group Metals

In its *Platinum 2000 Interim Review*, Johnson Matthey (JM) forecast that demand for platinum and palladium would exceed supply in 2000, and that the price of both metals might rise much higher than existing levels. The deficit for platinum was expected to fall to 8,710 kg in 2000 compared with a deficit of 22,700 kg in 1999. Platinum supply was expected to rise to about 168,000 kg from about 143,000 kg in 1999. JM forecast that platinum demand would increase to 177,000 kg in 2000 from 174,000 kg in 1999. South African platinum output rose slightly to 122,000 kg in 2000 from 121,000 in 1999. During the same period, Russian exports increased to 34,000 kg, up from 17,000 kg in 1999.

The JM report forecast that palladium demand would fall by 30,000 kg in 2000 to 261,000 kg, although demand would still exceed supply. The reason for the forecast decline was that demand from the auto industry in 2000 had fallen by 22,400 kg to 160,000 kg. However, demand was still expected to exceed supply by 15,000 kg, and this supply deficit combined with the 1999 deficit and continuing uncertainties about Russian supplies had driven the price of palladium to record highs (Johnson Matthey, 2000).

Rhodium prices strengthened in the first week of November in the absence of renewed imports from Russia. Prices rose as much as \$75 per ounce with traders closing sales at around \$1,825 per

ounce on November 2. In the ruthenium market, prices were slightly weaker with prices quoted several dollars lower than in the previous weeks at around \$152-\$157 per ounce on November 3. The price of ruthenium began rising in 1999 from about \$40 per ounce as reports of a ruthenium-based fuel cell and the development of ruthenium-based super alloys for use in the aerospace industry began circulating. Although neither application has been fully developed, the ruthenium market remained strong based on reports that a Japanese company is in the advanced stages of developing a fuel cell that uses ruthenium and nickel, obviating the need for the more expensive platinum (Metal Bulletin, 2000c).

Australia-based Copper Mines and Metals (CMM) has acquired a 49% stake in the Acoje platinum-palladium project on the Philippine island of Luzon. CMM reported that the project contains substantial resources of palladium, platinum, and nickel, estimated at 4.875 million tons of ore containing the equivalent of 16 grams-per-ton of platinum. According to CMM the mineralized zones also contain cobalt, copper, chrome, gold, rhodium, osmium, and iridium. The area previously hosted one of the world's largest metallurgical chromite deposits, which was mined by a local company from 1935 to 1991; nickel was also extracted from 1971 to 1975 (Platt's Metals Week, 2000b).

**Update.**—On January 18, 2001, the Defense Logistic Agency at the Defense National Stockpile Center proposed a sales increase in the Annual Materials Plan for palladium from 9,331.1 kg to 18,662.1 kg. The increase is for fiscal years 2001 and 2002. Reasons for the increase included historically high prices that would raise sales revenues and alleviate a severe shortage due to the lack of Russian PGM exports (R.J. Connelly, Administrator, Defense Logistics Agency, written commun., January 18, 2001).

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TABLE 1  
MINE PRODUCTION OF RECOVERABLE GOLD AND SILVER IN THE UNITED STATES, BY STATE 1/

(Kilograms)

Gold	Alaska	California	Nevada	Other States 2/	Total
1999: p/					
November	1,180	1,640	22,200	4,470	29,500
December	1,260	1,810	21,900	4,620	29,600
January-December	15,700	17,500	257,000	51,300	341,000
2000:					
January r/	1,200	1,470	23,200	4,200	30,000
February	1,140 r/	1,390	21,700 r/	4,030 r/	28,300 r/
March r/	1,200	1,390	22,600	4,400	29,600
April r/	1,190	1,280	21,400	4,240	28,100
May r/	1,190	1,360	19,500	4,540	26,600
June r/	1,190	1,470	21,400	4,710	28,800
July	1,460	1,470	18,900 r/	4,410 r/	26,300 r/
August	1,460	1,400 r/	20,800 r/	4,810 r/	28,500 r/
September	1,510	1,460	22,200 r/	3,900 r/	29,100 r/
October	1,510	1,360	19,000	5,680	27,600
November	1,020	1,170	19,100	5,900	24,700
January-November	14,000	15,200	230,000	50,800	308,000
Silver	Arizona	Idaho	Nevada	Other States 3/	Total
1999: p/					
November	12,100	34,400	41,500	61,500	150,000
December	14,700	34,400	75,100	61,800	187,000
January-December	183,000	417,000	577,000	769,000	1,950,000
2000:					
January	W	34,400	58,300 r/	75,200	168,000 r/
February	W	34,300 r/	63,100 r/	69,900	167,000 r/
March	W	34,300 r/	71,000 r/	75,000	180,000 r/
April	W	34,300 r/	57,500 r/	72,900 r/	165,000 r/
May	W	34,300 r/	73,800 r/	73,400 r/	182,000
June	W	34,200 r/	59,800	74,500 r/	168,000
July	W	34,200 r/	56,700 r/	71,200 r/	162,000 r/
August	W	34,800	53,100	73,200	161,000
September	W	34,500	53,700	69,500	158,000
October	W	34,500	45,900	66,000	146,000
November	W	34,500	56,700	64,300	156,000
January-November	W	378,000	650,000	785,000	1,810,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data, included with "Other States."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes Arizona, Colorado, Idaho, Montana, New Mexico, South Carolina, South Dakota, Utah, and Washington.

3/ Includes Alaska, California, Colorado, Missouri, Montana, New Mexico, New York, South Carolina, South Dakota, Tennessee, Utah, Washington, and State indicated by symbol W.

TABLE 2  
SELECTED PRECIOUS METAL PRICES

(Dollars per troy ounce)

	Gold	Silver	Platinum	Palladium
<b>Engelhard Industries:</b>				
<b>1999:</b>				
Low/date	253.88 (July 20)	4.91 (January 4, April 14, May 28, June 4)	344.00 (January 28)	293.00 (May 4)
High/date	326.70 (October 5)	5.75 (September 28)	457.00 (November 16)	456.00 (December 29)
Average	279.91	5.25	378.94	363.20
<b>2000:</b>				
<b>October:</b>				
Low/date	264.90/27	4.76/30	575.00/3 and 4	722.00/2
High/date	275.12/12	4.95/5 and 10	593.00/19 and 20	766.00/31
Average	271.11	4.88	584.36	748.46
<b>November:</b>				
Low/date	265.20/8	4.66/29	589.00/1 and 22	779.00/1
High/date	271.06/28	4.81/2	610/30	818.00/30
Average	267.15	4.72	599.30	792.55
<b>December:</b>				
Low/date	270.31/1	4.59/19	601.00/6	838.00/1
High/date	276.17/27	4.76/7	625.00/13 and 28	985.00/27
Average	272.92	4.67	614.95	928.55
<b>Year to date:</b>				
Low/date	264.90 (October 27)	4.59 (December 19)	416.00 (January 6)	437.00 (January 6)
High/date	313.88 (February 7)	5.53 (February 7)	625.00 (December 13 and 28)	985.00 (December 27)
Average	280.10	5.00	549.31	691.84
<b>Handy and Harman:</b>				
<b>1999</b>				
	278.81	5.25	XX	XX
<b>2000:</b>				
October	270.00	4.88	XX	XX
November	266.05	4.72	XX	XX
December	271.68	4.66	XX	XX
Average year to date	278.96	5.00	XX	XX
<b>London Final: 1/</b>				
<b>1999</b>				
	278.77	5.22	XX	XX
<b>2000:</b>				
October	270.00	4.83	XX	XX
November	266.01	4.68	XX	XX
December	271.54	4.64	XX	XX
Average year to date	279.04	4.95	XX	XX

XX Not applicable.

1/ Silver price reported as "London Spot/US Equiv."

Source: Platt's Metals Week.

TABLE 3  
U.S. IMPORTS AND EXPORTS OF GOLD 1/

(Kilograms of gold content, unless otherwise specified)

Period and country	Ores and concentrates 2/	Doré and precipitates	Refined bullion 3/	Ash and residues	Total 4/	Waste and scrap (gross weight)	Metal powder (gross weight)	Gold compounds (gross weight)
<b>Imports for consumption:</b>								
1999	117	24,700	196,000	133	221,000	30,500	5,500	9,400
<b>2000:</b>								
August	13	2,050	16,800	1	18,900	1,100	614	446
September	8	1,570	17,600	(5/)	19,100	1,720	1,320	178
<b>October:</b>								
Brazil	--	--	1,470	--	1,470	(5/)	--	155
Canada	3	--	14,500	15	14,500	103	557	--
Chile	--	--	550	--	550	--	--	--
Colombia	--	102	192	--	294	--	--	--
Dominican Republic	--	--	18	--	18	577	--	--
Honduras	--	106	--	--	106	--	--	--
Mexico	--	254	49	1	304	196	--	--
Nicaragua	--	99	--	3 6/	102	--	--	--
Peru	--	709	13	--	722	--	--	--
Other	11	64	78	--	153	166	5	2
Total	15	1,330	16,900	20	18,300	1,040	562	157
Year to date	63	26,800	151,000	35	178,000	15,300	4,940	7,640
<b>Exports:</b>								
1999	117	87,300	435,000	--	523,000	40,000	270	561,000
<b>2000:</b>								
August	320	6,960	21,300	--	28,600	3,940	22	233,000
September	--	6,120	42,300	--	48,400	7,850	441	20,200
<b>October:</b>								
Belgium	--	--	--	--	--	190	--	--
Brazil	9	--	--	--	9	--	--	--
Canada	--	443	22	--	465	3,100 6/	4	3,170 6/
Colombia	--	--	--	--	--	--	--	3,030 6/
Dominican Republic	--	--	--	--	--	--	--	289 6/
France	3	--	--	--	3	--	3	11 6/
Germany	--	4	--	--	4	237	8	8 6/
Hong Kong	--	--	525	--	525	--	--	--
Israel	--	--	1	--	1	--	--	22,400 6/
Italy	--	--	--	--	--	214	--	--
Mexico	--	--	2,210	--	2,210	--	2	--
Peru	--	--	638	--	638	--	--	--
Philippines	1	--	(5/)	--	1	--	--	--
Singapore	--	--	525	--	525	--	--	20 6/
Switzerland	--	7,420	21,000	--	28,400	--	--	--
Taiwan	--	13	500	--	513	--	--	--
United Kingdom	--	--	10,600	--	10,600	5,370	1	2
Other	--	6	126	--	132	67	10	12
Total	13	7,890	36,100	--	44,000	9,180	28	28,900
Year to date	704	88,100	344,000	--	433,000	53,700	1,080	1,180,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes gold content of base metal ores, concentrates, and matte imported for refining.

3/ Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold excluded.

4/ "Waste and scrap," "Metal powder," or "Gold compounds" not included in "Total."

5/ Less than 1/2 unit.

6/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS AND EXPORTS OF SILVER, REFINED AND AS NITRATE 1/

(Kilograms)

Period and country	Bullion (silver content)	Doré (silver content)	Total (silver content)	Other unwrought silver (gross weight)	Metal powder (gross weight)	Silver nitrate (gross weight)
<b>Imports for consumption:</b>						
1999	2,660,000	407,000	3,070,000	126,000	120,000	4,480
<b>2000:</b>						
August	241,000	--	241,000	19,600	11,200	--
September	235,000	1,110	236,000	20,700	15,800	1,520
<b>October:</b>						
Belgium	--	--	--	--	--	8,040
Canada	114,000	--	114,000	2,940	--	133
France	--	--	--	--	27	1,150
Germany	--	--	--	--	1,120	--
Japan	--	--	--	19 2/	7,230	--
Mexico	144,000	--	144,000	3,700	--	--
Panama	85	--	85	--	--	--
Peru	4,600	--	4,600	--	--	--
Switzerland	--	--	--	--	50	--
Taiwan	--	--	--	--	65	--
United Kingdom	75,300	--	75,300	--	--	--
Other	--	--	--	--	--	--
Total	338,000	--	338,000	6,650	8,490	9,320
Year to date	3,350,000	69,400	3,420,000	155,000	203,000	19,100
<b>Exports:</b>						
1999	481,000	64,400	545,000	75,100	324,000	62,500
<b>2000:</b>						
August	24,600	1,740	26,300	2,940	36,400	21,300
September	64,500	662	65,100	4,730	37,700	11,400
<b>October:</b>						
Belgium	--	--	--	29	58	--
Brazil	--	--	--	497	--	--
Canada	--	--	--	88	2,100	11,700
China	--	--	--	--	909	3,880
Dominican Republic	--	--	--	126	--	--
France	--	--	--	--	1,600	--
Germany	--	--	--	1,980	11,700 2/	--
Hong Kong	--	--	--	--	2,940	--
Ireland	--	--	--	--	660	--
Japan	--	--	--	84	18,600	--
Korea, Republic of	--	--	--	--	2,400	--
Mexico	--	--	--	--	734	7,270 2/
Netherlands	--	--	--	--	332 2/	--
Russia	--	--	--	--	--	217 2/
Singapore	--	--	--	--	174	--
Switzerland	10,100	396	10,500	--	--	--
Taiwan	--	--	--	3,150	7,600	--
Thailand	--	--	--	--	299	--
United Kingdom	1,530	198	1,730	--	1,010 2/	--
Uruguay	--	--	--	131	--	--
Other	--	--	--	38	68	--
Total	11,600	593	12,200	6,120	51,200	23,100
Year to date	250,000	33,800	284,000	52,000	358,000	189,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS AND EXPORTS OF SILVER, RAW, SEMIMANUFACTURED, AND WASTE AND SCRAP 1/

(Kilograms of silver content, unless otherwise specified)

Period and country	Silver ores and concentrates	Base metal ores and concentrates	Ash and residues	Total	Semimanufactured form 2/ 3/ (gross weight)	Waste and scrap (gross weight)
<b>Imports for consumption:</b>						
1999	10,800	2,750	101,000	115,000	137,000	1,640,000
<b>2000:</b>						
August	337	--	3,470	3,800	7,180	17,600
September	--	--	1,010	1,010	32,500	183,000
<b>October:</b>						
Australia	--	--	158	158	--	--
Belgium	--	--	--	--	--	147
Brazil	--	--	--	--	361	--
Canada	--	--	8,130	8,130	113 4/	78,900
Dominican Republic	--	--	--	--	--	659
France	--	--	--	--	442	--
Germany	--	--	--	--	6,460 4/	17,800
Italy	--	--	--	--	67 4/	--
Japan	--	--	(5/)	(5/)	129 4/	7
Korea, Republic of	--	--	--	--	791	20,000
Malaysia	--	--	--	--	--	10,900
Mexico	--	--	377	377	171	139
Philippines	--	--	--	--	--	3,250
Singapore	--	--	--	--	--	201
United Kingdom	--	--	1,580	1,580	604 4/	24
Other	--	--	--	--	42 4/	100
Total	--	--	10,200	10,200	9,180	132,000
Year to date	1,420	--	43,000	44,400	111,000	1,020,000
<b>Exports:</b>						
1999	70,800	--	--	70,800	122,000	1,310,000
<b>2000:</b>						
August	5,410	--	--	5,410	9,230	188,000
September	2,290	--	--	2,290	9,530	111,000
<b>October:</b>						
Belgium	--	--	--	--	37	27,800
Brazil	--	--	--	--	303	--
Canada	--	--	--	--	4,440 4/	48,400
China	--	--	--	--	--	33,200
France	--	--	--	--	131 4/	--
Germany	--	--	--	--	139 4/	18,800
Hong Kong	--	--	--	--	218	352
Israel	--	--	--	--	--	258
Japan	--	--	--	--	326 4/	12,600
Mexico	--	--	--	--	850 4/	63
Peru	--	--	--	--	75	--
Singapore	--	--	--	--	1,030 4/	--
South Africa	--	--	--	--	--	170
Spain	--	--	--	--	479 4/	--
Sweden	--	--	--	--	--	4,440
Taiwan	--	--	--	--	480 4/	46
United Kingdom	--	--	--	--	435 4/	6,110
Other	--	--	--	--	140 4/	33
Total	--	--	--	--	9,090	152,000
Year to date	64,300	--	--	64,300	128,000	1,360,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Containing 99.5% or more by weight of silver. Imports only.

3/ Semimanufactured (including silver plated with gold or platinum) forms of silver.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

5/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS 1/

(Kilograms of metal content, unless otherwise specified)

Period and country	Platinum grain and nuggets	Platinum sponge	Other unwrought platinum	Platinum, other	Platinum waste and scrap	Platinum coins	Unwrought palladium	Palladium, other	Iridium 2/	Unwrought osmium	Unwrought ruthenium	Rhodium 3/
1999	6,100	74,300	7,820	16,500	19,700	171	165,000	24,100	2,250	23	11,400	10,300
2000:												
July	253	5,750	163	674	431	(4/)	8,290	1,590	138	--	8,780	1,160
August	290	5,520	218	896	225	(4/)	18,800	1,660	254	--	650	913
September:												
Austria	--	--	--	--	--	--	--	--	--	--	--	362
Belgium	--	399	--	--	--	--	1,240	--	--	--	--	224
Brazil	--	--	--	13	66	--	221	--	--	--	--	--
Canada	1	1	1	90	15	6	244	6	10	--	--	--
Chile	--	--	--	150	--	--	--	--	--	--	--	--
Colombia	--	--	14	--	--	--	--	--	--	--	--	--
Costa Rica	--	--	--	--	6	--	--	--	--	--	--	--
Estonia	--	--	--	--	--	--	2	--	--	--	--	4
Finland	--	--	2	--	--	--	--	--	--	--	--	--
France	--	--	--	1	4	--	--	--	--	--	--	--
Germany	64	433	12	351	33	2	409	573	10 5/	--	136	59
Hong Kong	--	--	--	--	22	--	--	--	--	--	--	--
Israel	--	--	46	--	11	--	--	--	--	--	--	--
Italy	--	33	16	--	--	--	55	85	--	--	--	--
Japan	16	--	--	163	(4/)	--	676	60	--	--	--	6
Korea, Republic of	--	--	--	--	10	--	--	--	--	--	--	--
Mexico	--	3	--	--	11	--	12	--	--	--	--	--
Netherlands	--	--	--	32 5/	--	--	--	--	--	--	--	--
Norway	--	16	--	--	--	--	15	--	--	--	--	--
Peru	--	--	--	--	1	--	--	--	--	--	--	--
Russia	--	495	93	--	--	--	8,660	307	--	--	201	765
South Africa	36	3,980	186	--	--	--	1,650	66	123	--	393	637
Sweden	--	--	--	--	--	--	117	--	--	--	--	--
Switzerland	--	224	--	84	--	--	74	59	--	--	--	--
United Kingdom	--	151	169	91 5/	29	--	1,280 5/	--	230 5/	--	--	120
Total	116	5,730	539	975	208	8	14,700	1,160	373	--	729	2,180
Year to date	2,440	58,500	3,280	6,360	11,500	27	121,000	26,900	2,210	102	19,200	15,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Unwrought and other forms of iridium.

3/ Unwrought and other forms of rhodium.

4/ Less than 1/2 unit.

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF PLATINUM-GROUP METALS 1/

(Kilograms of metal content, unless otherwise specified)

Period and country	Palladium 2/	Platinum 2/	Platinum waste and scrap	Iridium, osmium and ruthenium 2/ 3/	Rhodium 2/
1999	43,800	19,400	7,660	851	114
2000:					
August	3,940	2,380	434	91	59
September	3,100 r/	1,200	574	7	55
October:					
Australia	12	7	--	--	--
Austria	--	4	--	--	--
Bahamas, The	--	--	(4/)	--	--
Belgium	86 5/	6	5	--	--
Brazil	36	--	--	--	--
Canada	141	150	27	3	(4/) 5/
China	--	(4/)	1	--	--
Colombia	--	1	--	--	--
Costa Rica	--	(4/)	--	--	--
Denmark	1	2	--	1	--
Finland	(4/)	5	--	--	--
France	38 5/	12	--	1	--
Germany	566	430	540	1	5
Hong Kong	36 5/	4	--	63	(4/)
India	--	2 5/	--	--	(4/)
Ireland	--	16	--	--	--
Israel	415 5/	--	--	--	--
Italy	71 5/	20 5/	--	--	--
Japan	594 5/	111	--	--	19
Korea, Republic of	145	4	47	--	--
Lebanon	--	--	--	--	(4/)
Malaysia	2	(4/)	--	--	--
Mexico	5	25 5/	--	--	--
Netherlands	59	3	--	1	--
New Zealand	10 5/	--	--	--	--
Norway	6	1	--	--	--
Philippines	6 5/	3	--	--	--
Singapore	66 5/	3	--	--	--
Slovenia	43 5/	--	--	--	--
South Africa	--	--	9	--	--
Spain	19 5/	--	--	--	--
Sweden	5	5	4	--	--
Switzerland	24	2	--	--	--
Taiwan	616	1	--	--	--
Thailand	2	4	--	--	(4/)
Turkey	4 5/	--	--	--	(4/)
United Arab Emirates	1	--	--	--	(4/)
United Kingdom	3,390 5/	303	188	124	--
Uruguay	--	29	--	--	--
Total	6,400	1,150	821	193	25
Year to date	45,500	22,400	6,050	1,210	663

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Unwrought and other forms.

3/ Gross weight.

4/ Less than 1/2 unit.

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.